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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,148	03/10/2004	Makoto Shizukuishi	06-49-0947P	2037
2292 7590 10/16/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER NGUYEN, LUONG TRUNG				
ART UNIT 2622		PAPER NUMBER		
NOTIFICATION DATE 10/16/2008		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

# Office Action Summary

**Application No.**

10/796,148

**Applicant(s)**

SHIZUKUIISHI, MAKOTO

**Examiner**

LUONG T. NGUYEN

**Art Unit**

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-28 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Objections***

1. Claims 1-28 are objected to because of the following informalities:

Claim 1 (lines 9-10, 12-13, 14-15), “the complementary color filters” should be changed to --the plurality of complimentary filters--.

Claim 1 (line 11), “the light-receiving section” should be changed to --the plurality of light-receiving sections--.

Claim 2 (line 11), “the light-receiving section” should be changed to --the plurality of light-receiving sections--.

Claim 3 (line 2), claim 4 (line 2), claim 5 (line 2), claim 6 (line 2), claim 7 (line 2), “light-receiving sections” should be changed to --the plurality of light-receiving sections--.

Claim 8 (line 2), “the region” should be changed to --the heavily-doped impurity region--.

Claim 9 (line 5), “the layer” should be changed to --the color signal detecting layer--.

Claim 9 (line 5), “the path” should be changed to --the electric charge path--.

Claim 11 (line 4), claim 12 (line 2), claim 13 (line 2), “the light-receiving sections” should be changed to --the plurality of light-receiving sections--.

Claim 14 (line 5), “the light-receiving section” should be changed to --the plurality of light-receiving sections--.

Claim 14 (line 5), “as the color signal” should be changed to --as a first color signal--.

Claim 14 (line 8), “the light-receiving section” should be changed to --the plurality of light-receiving sections--.

Claim 14 (line 8), “as the color signal” should be changed to --as a second color signal--.

Claim 17 (line 2), “the light-receiving sections” should be changed to --the plurality of light-receiving sections--.

Claim 17 (line 5), “by incident light” should be changed to --by the incident light--.

Claim 17 (line 6), “change in electric charges” should be changed to --change in the electric charges--.

Claim 17 (line 6), “by means of electric charges” should be changed to --by means of the electric charges--.

Claim 17 (lines 6-7), “is read as the color signal” should be changed to --is read as color signal--.

Claim 20 (line 3), “a complementary color filter” should be changed to --the complementary color filter--.

Claim 27 (line 6), “light-receiving sections” should be changed to --the plurality of light-receiving sections--.

Claims 3-28 are objected as being dependent on claim 1.

Appropriate correction is required.

***Allowable Subject Matter***

2. Claims 1-28 are allowed.

It should be noted that since independent claim 1 is allowed, the withdrawn claims 3-5, 7, 13, 15, 18, which depend from independent claim 1, are rejoined to independent claim 1 and also are allowed.

Regarding claim 1, the prior art of the record fails to show or fairly suggest a color solid-state image pickup device comprising:

a plurality of complementary color filters, with one complementary color filter stacked on each of at least half of the plurality of light-receiving sections, each complementary color filter blocking incident light of one color of three primary colors, to thereby permit transmission of incident light of remaining two colors of the three primary colors;

at least first and second color signal detecting layers which have the complementary color filters stacked thereon and are formed so as to be separated in a depthwise direction of the light-receiving section, the first signal detecting layer detecting a color signal of one color of the light of two colors having passed through the complementary color filters, and the second signal detecting layer detecting a color signal of remaining one color of the light of two colors having passed through the complementary color filters.

Claims 3-28 are allowed for the reasons given in claim 1.

Regarding claim 2, the prior art of the record fails to show or fairly suggest a color solid-state image pickup device comprising:

wherein a color signal of one color being different from two colors of the three primary colors, the two colors being detected by a first light-receiving section with the complementary color filter stacked thereon, is determined by subjecting, to interpolation processing, at least one detection signal detected by at least one second light-receiving section which is provided around the first light-receiving section and, at least, detects the color signal of the one color being different from the two colors detected by the first light-receiving section.

***Conclusion***

3. This application is in condition for allowance except for the objection of claims 1-28 as indicated above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 25 USPQ 74, 453 O.G. 213, (Comm'r Pat. 1935).

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUONG T. NGUYEN whose telephone number is (571)272-7315. The examiner can normally be reached on 7:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID L. OMETZ can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LTN  
10/13/08

/LUONG T NGUYEN/  
Examiner, Art Unit 2622